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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,809	06/02/2006	Frank Heinle	NL03 1405 US1	1938
65913	7590	06/24/2008	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			JAMA, ISAAK R	
			ART UNIT	PAPER NUMBER
			4163	
			NOTIFICATION DATE	DELIVERY MODE
			06/24/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/581,809	Applicant(s) HEINLE, FRANK	
	Examiner ISAAK JAMA	Art Unit 4163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/02/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/02/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, and 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication Number 2003/0215003 (Bottomley et al.).

3. As to claims 1, 7 and 8, Bottomley discloses a Station comprising a rake receiver (Figure 2, # 62) with a finger (Figure 2# 70) which finger comprises a Hadamard transformer (also known as Walsh transformer) (Figure 2 # 78), (see also page 3, paragraph 0034).

4. As to claim 2, Bottomley discloses a finger that comprises a descrambling section and a despreading section which despreading section comprises the Hadamard transformer (Figure 2, #74, Page 3, paragraph 0034).

5. As to claim 9, Bottomley discloses a method for despreading a descrambled signal, which method comprises a Hadamard transforming step (Figure 2, paragraph 0036).

6. As to claim 10, Bottomley discloses a Processor program product for despreding a descrambled signal, which processor program product comprises a Hadamard transforming function (Page 5, column 0053).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0215003 (Bottomley et al.) in view of U.S. Patent Number 6,625,197 (Lundby et al.).

9. As to claim 3, Bottomley teaches the limitations of claim 1 as discussed above, in addition, Bottomley teaches that the despreding section further comprises a series-to-parallel converter for serial-to-parallel (Figure 2, # 76) converting a descrambled signal, which serial-to-parallel converter comprises downsamplers coupled to inputs of the Hadamard transformer and comprise a selector for generating despreded symbols per channel, and which selector is coupled to outputs of the Hadamard transformer (# 78, Flexible Fast Walsh Transformer), but Bottomley fails to teach that the descrambling section comprises a multiplier for multiplying a finger output signal with a complex conjugated scrambling code for descrambling the finger input signal. Lundby teaches a Rake receiver finger (Figure 6, # 200A) with a descrambler section that comprise a complex conjugate multiplier (Figure 6, # 212A) for descrambling the finger input signal

(Figure 6, # 198). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the complex conjugate multiplier of Lundy in the descrambling section of Bottomley in order to remove phase errors from the received signal.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bottomley in view of Lundby as applied to claim 3 above, and further in view of U. S. Patent Number 7,203,220 (Baltersee et al.).

11. As to claim 4, Bottomley and Lundby have been discussed above. In addition, Lundby discloses a rake receiver that further comprises: a further finger (Figure 7, # 300C); a delaying section for delaying a frequency converted signal and for generating the finger signal destined for the finger and a further finger signal destined for the further finger (Figure 7# 320). What Bottomley and Lundby do not teach is a synchronization section for receiving the frequency converted signal and for in response controlling the delaying section. Baltersee teaches a method and a rake receiver for code tracking that includes a synchronization branch (column 8, line 58). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the synchronization section of Baltersee in the system of Bottomley and Lundby in order to recover the clock timing of each transmitted symbol.

Allowable Subject Matter

12. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: Claim 5 and claim 6 which depend on claim 5 recite, in combination, "a mobile station with a number of de-channelization codes used being at least ten percent of a despread factor used", a limitation that the prior art fails to teach or suggest.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U. S. Patent Number 6,456,611 to Hu et al. discloses a CDMA modem for use in a CDMA base station for communicating with a plurality of mobile stations. U. S. Patent Number 7,106,783 to Seo et al. teaches a method for searching multipaths for a mobile communication system. U. S. Patent Number 6,175,588 to Visotsky et al. teaches a mobile station for interference suppression using adaptive equalization in a spread spectrum communication system. U. S. Patent Number 6,459,883 to Subramanian et al. teaches a rake receiver with generic finger architecture for spread spectrum applications. U. S. Patent Number 6,813,309 to Ogino teaches a reception method and circuit in a CDMA communication system employing a RAKE combining receiver that combines radiowaves of propagation paths having different delay times.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAK JAMA whose telephone number is (571) 270-5887. The examiner can normally be reached on 7:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Robinson can be reached on (571) 272-2319. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/I. J. /

Examiner, Art Unit 4163

/Mark A. Robinson/

Supervisory Patent Examiner, Art Unit 4163